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From the Author

ON

CONTAGION,

IN REFERENCE TO

TYPHUS FEVER AND ASIATIC CHOLERA.

BY JOHN GEORGE FRENCH, Esq.

SURGEON TO ST. JAMES'S INFIRMARY.

(From the London Medical Gazette.)

THE mode in which disease is propagated, whether by communication with, or contiguity to, the sick, or by other causes alone, must necessarily be a subject of some difficulty, since the most opposite opinions have been entertained by those who have had the best opportunities of forming a judgment upon it. The late Dr. Armstrong, for many years physician to the Fever Hospital, did not believe that typhus was contagious; and I recently inquired of an eminent physician, for many years attached to a metropolitan hospital, his opinion of the contagion of typhus. He replied, "Before 1836 I should have said 'No,' since that year I should answer 'Yes,' from evidence which that period afforded me."

My own experience in 1831 leaves me in no doubt on the subject. In March in that year a family was passed from Water Lane, Fleet Street, into St. James's Workhouse, affected with fever. No case of fever existed within the walls of the workhouse previously, nor was any such disease known to exist in any part of the parish. The man died two days after admission, and, on the third day after his death, the nurse who attended him died of

the disease. Within a week, two convalescent patients who had assisted the nurse in the care of the first patient, had the fever, and died also; other inmates of the same ward then became affected with the disease, among whom was the surgery-man, who, although not a patient, slept in this ward; then some patients in the adjoining ward became affected; next some of the laundresses who washed the linen of the deceased; then their bed-fellows and neighbours; and, finally, the watchmen of the premises. The number of cases was 22: the disease was of unexampled severity. Dr. Tweedie, who saw the cases, and also received many of them into the Fever Hospital, expressed himself very strongly on this point. My belief is, that had this family remained in Water Lane, instead of coming into St. James's Workhouse, these 22 cases of fever would not have occurred.

During last year, repeated instances of the following kind occurred under my observation:—A large family, occupying a single apartment, received as their guest or lodger an inmate just arrived from Ireland. A day or two afterwards they applied for his removal to the Fever Hospital; and shortly

after this, a portion, and in some instances the whole family, became affected with fever. The disease often spread to the families on the neighbouring floors and houses. On such evidence as this, then, I believe that typhus fever is a contagious disease.

In 1832, I had the charge of St. James's Cholera Hospital. A matron was engaged,—selected, among other qualifications, for the vigour of her constitution, and temperate habits. She was 40 years of age. Her duties were those of housekeeper, not of attendant on the sick. She had resided in the hospital for some weeks previously to the admission of any cases. The first case which was admitted was Mary Lee (aged 30) on the 6th July. The journal of the hospital states that she had been nursing her mother, who had died the day previously of cholera, and was seized in the churchyard at her funeral. This patient died seventeen hours after admission, and was not seen by the matron.

The second case was Margaret Lidgate, aged 9, admitted on the 8th July, from the Burlington School, at 1 P.M. The matron immediately visited this child, sat with her, and rubbed her legs while she was in a state of collapse. At half-past 5 o'clock the matron (previously in excellent health) was attacked with cholera, and died in thirteen hours and a half.

I believe that the communication which the matron had with this patient was the real cause of her attack.

John Foy, a labouring man, was attacked while at work at Paddington, at 2 P.M. in August 1833. Some of his comrades had become affected in this locality, and died. He was brought home to Ham Yard, Windmill Street. His wife was attacked after nursing him two days, and subsequently three cases occurred on the floor above that on which he resided. This is precisely the same kind of evidence as that on which the contagious nature of typhus rests.

Although these cases afford ample evidence, to my mind, of their contagious origin, I am by no means disposed to doubt that other and more numerous cases might claim their origin from other causes.

It may, however, here be remarked, with reference to the general question

of prevention as contemplated by quarantine regulations, that it is highly doubtful whether any known or practised system of quarantine would prevent the introduction of a disease so universally admitted to be exclusively contagious as syphilis, should a new form of that disease, for the sake of argument, be the object of its laws.

The ideas, indeed, commonly attached to contagion are so exaggerated, that when diseases, supposed to be of this nature, are observed under ordinary circumstances, the evidence is so weak and doubtful, that men of considerable experience are led to form the strongest opinions that these diseases are incommunicable from one individual to another. Thus, the facts elicited by a careful inquiry into the history of the *Eclair*, were in direct opposition to the numerous opinions formed by men who had observed the disease, which was the object of inquiry, at different times and places. So, although Dr. Armstrong denied the contagion of typhus, the Commissioners of Health, in a recent circular, declare it to be a "*highly contagious disease*."

The degree in which diseases are contagious is a question, indeed, of very great difficulty; but it is certain that the principal circumstances connected with it are, the denseness of the population, and the number of cases of the same disease crowded together, although it is a part of the history of disease that occasional outbreaks of unusual virulence will occur which defy all calculation.

The chief practical question, indeed, is, if diseases are deemed contagious, how are they to be disposed of.

It has been my practice for many years to separate, as widely as possible, cases of the same disease which are deemed contagious, and, I believe, with an undoubtedly good result. So, if there are more cases than one of erysipelas, or other contagious disease, I place them in different wards; and I am satisfied, from experience, that there is less danger of infection from increasing, as it were, a malarious area, than from the more concentrated taint occupying possibly a smaller space; and also that the cases themselves proceed more favourably.

In 1836, by order of the Board of Directors, typhus cases were not permitted to be received into the Infirm-

mary; but the building which was used for the Cholera Hospital in 1832, being a house situated in Marshall Street, Golden Square, was appropriated to the reception of typhus cases. The number of patients received there amounted only to three, all of whom recovered; but the two nurses who attended them during their protracted illness had the fever, and died. The Board, consequently, directed that all cases of typhus should be sent to the Fever Hospital.

Last year the number of fever cases was so great that the hospital was filled, and many cases of houseless poor required accommodation. Ten cases were treated at the Infirmary, and there was not any spreading of the disease whatever. There was generally but one case in a large ward at a time; and if there were more they were placed in beds as far as possible from each other, with other patients intervening: while in the lodging-houses, containing about fifty inhabitants, which contained really accommodation for six or eight, the disease spread in such a manner as to justify my belief that if hospitals received cholera patients into their wards as ordinary cases, there would certainly not be more danger than exists from

erysipelas in every case of accident; and that the cases themselves would do better than if collected together.

Again, I think it highly desirable that every locality should have some reasonable accommodation for casual cases, and for emergencies; as, for instance, in order to thin the number of cases where they should occur in crowded houses—well recollecting the relief from anxiety which the thinning of the number of fever cases afforded me in 1831.

It will be observed, that this view of the subject is founded on the supposition that the general idea attached to contagion is greatly exaggerated with regard to the chances of propagation, and also of the importance of contagious diseases (instead of being collected together) being as much as possible separated, both as regards the well-doing of the cases themselves and lessening the virulence of the contagious virus; for it must be remembered that such remarkable instances of propagation by contagion as those afforded by the epidemic on board the *Eclair*, as well as those which occurred in St. James's Infirmary, in 1831, are of such uncommon occurrence as to be regarded as the exception rather than the rule.



